Claims

1. (Previously Presented) A system for communicating optical traffic between ring networks, comprising:

a first optical ring network and a second optical ring network, each optical ring network operable to communicate optical traffic comprising a plurality of wavelengths;

a first ring interconnect (RIC) node and a second RIC node, each RIC node coupled to the first and second optical ring networks;

the first RIC node operable to communicate optical traffic between the first and second optical ring networks;

wherein the second RIC node is inactive under normal system operation and not operable to communicate optical traffic between the first and second optical ring networks when the first RIC node is able to communicate optical traffic between the first and second optical ring networks;

the second RIC node comprising a rejection block operable to detect traffic of one or more wavelengths to determine when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks; and

the second RIC node operable to communicate optical traffic between the first and second optical ring networks when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks.

2. (Canceled)

3. (Original) The system of Claim 1, wherein the first RIC node is operable to:

receive optical traffic from the first optical ring network;

passively pass through a first copy of the optical traffic along the first optical ring;

drop a second copy of the optical traffic;

select one or more wavelengths of the dropped optical traffic; and

communicate the one or more wavelengths to the second optical ring network.

4. (Original) The system of Claim 3, wherein the second RIC node is operable to:

determine when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks;

receive the first copy of the optical traffic from the first RIC node;

passively pass through a third copy of the optical traffic along the first optical ring;

drop a fourth copy of the optical traffic;

select one or more wavelengths of the dropped optical traffic; and

communicate the one or more wavelengths to the second optical ring network when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks.

5. (Original) The system of Claim 1, wherein the first and second RIC nodes each comprise a wavelength select unit operable to select one or more wavelengths of optical traffic for communication between the first and second optical ring networks.

6. (Original) The system of Claim 5, wherein at least one wavelength select unit comprises a tunable filter array comprising a first number of tunable filters for passing a first number of wavelengths of optical traffic for communication between the first and second optical ring networks.

7. (Previously Presented) The system of Claim 5, wherein at least one wavelength select unit comprises a second number of switches for selectively forwarding a second number of wavelengths of optical traffic for communication between the first and second optical ring networks.

8. (Original) The system of Claim 1, wherein the second RIC node is operable to communicate optical traffic between the first and second optical ring networks when the first RIC node is unable to perform such communication due to a failure of the first RIC node.

9. (Original) The system of Claim 1, wherein the second RIC node is operable to communicate optical traffic between the first and second optical ring networks when the first RIC node is unable to perform such communication due to a fiber cut to the first optical ring network.

10. (Canceled)

11. (Previously Presented) A method for communicating optical traffic between ring networks, comprising:

communicating optical traffic comprising a plurality of wavelengths through a first optical ring network and through a second optical ring network;

communicating optical traffic between the first and second optical ring networks at a first ring interconnect (RIC) node;

wherein a second RIC node is inactive under normal system operation and not operable to communicate optical traffic between the first and second optical ring networks when the first RIC node is able to communicate optical traffic between the first and second optical ring networks;

detecting traffic of one or more wavelengths at a rejection block to determine when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks; and

communicating optical traffic between the first and second optical ring networks at the second RIC node when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks.

12. (Canceled)

13. (Original) The method of Claim 11, further comprising:

receiving optical traffic from the first optical ring network at the first RIC node;

passively passing through a first copy of the optical traffic at the first RIC node along the first optical ring;

dropping a second copy of the optical traffic at the first RIC node;

selecting one or more wavelengths of the dropped optical traffic at the first RIC node; and

communicating the one or more wavelengths to the second optical ring network at the first RIC node.

14. (Original) The method of Claim 13, further comprising:

determining when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks at the second RIC node;

receiving the first copy of the optical traffic from the first RIC node at the second RIC node;

passively passing through a third copy of the optical traffic at the second RIC node along the first optical ring;

dropping a fourth copy of the optical traffic at the second RIC node;

selecting one or more wavelengths of the dropped optical traffic at the second RIC node; and

communicating the one or more wavelengths to the second optical ring network at the second RIC node when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks.

15. (Original) The method of Claim 11, further comprising selecting one or more wavelengths of optical traffic for communication between the first and second optical ring networks at a wavelength select unit of the first RIC node.

16. (Original) The method of Claim 15, further comprising filtering a first number of wavelengths of optical traffic for communication between the first and second optical ring networks at a tunable filter array of the wavelength select unit.

17. (Previously Presented) The method of Claim 15, further comprising selectively forwarding a second number of wavelengths of optical traffic for communication between the first and second optical ring networks at a second number of switches of the wavelength select unit.

18. (Original) The method of Claim 11, wherein communicating optical traffic between the first and second optical ring networks at a second RIC node when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks comprises communicating optical traffic between the first and second optical ring networks at a second RIC node when the first RIC node is unable to perform such communication due to a failure of the first RIC node.

19. (Original) The method of Claim 11, wherein communicating optical traffic between the first and second optical ring networks at a second RIC node when the first RIC node is unable to communicate optical traffic between the first and second optical ring networks comprises communicating optical traffic between the first and second optical ring networks at a second RIC node when the first RIC node is unable to perform such communication due to a fiber cut to the first optical ring network.

20. (Canceled)